AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-62 (Canceled)

63. (currently amended) A system for detecting the growth of microorganisms in a sample in a container, comprising:

a plurality of containers; and

an apparatus, the apparatus comprising:

a module comprising a plurality of openings configured for receiving said containers;

a laser that emits ~~adapted to emit~~, through at least one of said containers~~container~~, radiation at a substantially single wavelength at which O_2 gas absorbs radiation;

a detector ~~adapted to detect~~that detects at least a portion of said radiation that passes through said container; and

a signal analyzer ~~adapted to analyze~~that analyzes said detected radiation, wherein the signal analyzer determines at least one parameter selected from the group consisting of the pressure in the container, the existence of O_2 gas in the container, and the concentration of O_2 gas in the container.

64. (previously presented) The system of claim 63, wherein the laser is a monomodal, distributed feedback laser.

65. (previously presented) The system of claim 63, wherein the single wavelength is approximately 761.5 nanometers.

66. (previously presented) The system of claim 63, wherein the signal analyzer determines the pressure in the container.

67. (previously presented) The system of claim 63, wherein the signal analyzer determines the existence of said O_2 gas in the container.

68. (previously presented) The system of claim 63, wherein the signal analyzer determines the concentration of said O_2 gas in the container.

69. (previously presented) The system of claim 63, wherein said signal analyzer includes a spectrography device, adapted to spectrographically analyze said detected portion of said radiation.

70. (currently amended) The system of claim 63, ~~wherein the system is adapted to hold a plurality of said containers, and~~ wherein the system further comprises a housing, adapted to house said laser and said detector, said housing being movable such that said laser and said detector are capable of being located proximate to each of said containers, sequentially in time.

71. (previously presented) The system of claim 70, wherein said containers are arranged in a plurality of rows and columns, and the housing is adapted to move along said rows and said columns.

72. (previously presented) The system of claim 70, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

73. (currently amendment) The system of claim 63, ~~wherein the system is adapted to hold a plurality of said containers,~~ wherein the system further comprises a housing having ~~a~~the plurality of openings therein, each said opening adapted to receive one of said containers, and wherein the housing is movable such that each of said containers is capable of being moved proximate to said laser and said detector.

74. (previously presented) The system of claim 73, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said housing, and wherein said housing rotates to move said containers proximate to said laser and said detector.

75. (canceled) The system of claim 63, wherein said laser is a diode laser, and wherein the laser is capable of being tuned to emit radiation at a plurality of distinct, substantially single wavelengths.

76. (previously presented) The system of claim 63, wherein the system comprises a plurality of said lasers and a plurality of said detectors.

77. (currently amended) The system of claim 63, wherein said ~~container comprises~~containers comprise a sample vial having a neck, and wherein said laser emits~~is adapted to emit~~ said radiation through said neck.

78. (canceled) The system of claim 63, wherein said signal analyzer comprises a computer.

79. (currently amended) A system for detecting the growth of microorganisms in a sample in a container, comprising:

a plurality of containers; and

an apparatus, the apparatus comprising:

a module comprising a plurality of openings configured for receiving said containers;

a laser ~~adapted to emit~~that emits, through at least one of said containers~~container~~, radiation at a substantially single wavelength of approximately 2.004 micrometers at which CO_2 gas absorbs radiation;

a detector ~~adapted to detect~~that detects at least a portion of said radiation that passes through said container; and

a signal analyzer ~~adapted to analyze~~that analyzes said detected radiation of approximately 2.004 micrometers, wherein the signal analyzer determines at least one parameter selected from the group consisting of the pressure in the container, the existence of CO_2 gas in the container, and the concentration of CO_2 gas in the container.

80. (previously presented) The system of claim 79, wherein the laser is a monomodal, distributed feedback laser.

81. (previously presented) The system of claim 79, wherein the signal analyzer determines the pressure in the container.

82. (previously presented) The system of claim 79, wherein the signal analyzer determines the existence of said CO_2 gas in the container.

83. (previously presented) The system of claim 79, wherein the signal analyzer determines the concentration of said CO_2 gas in the container.

84. (previously presented) The system of claim 79, wherein said signal analyzer includes a spectrography device, adapted to spectrographically analyze said detected portion of said radiation.

85. (currently amended) The system of claim 79, ~~wherein the system is adapted to hold a plurality of said containers, and~~ wherein the system further comprises a housing, adapted to house said laser and said detector, said housing being movable such that said laser and said detector are capable of being located proximate to each of said containers, sequentially in time.

86. (previously presented) The system of claim 85, wherein said containers are arranged in a plurality of rows and columns, and the housing is adapted to move along said rows and said columns.

87. (previously presented) The system of claim 85, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

88. (currently amended) The system of claim 79, ~~wherein the system is adapted to hold a plurality of said containers,~~ wherein the system further comprises a housing having athe plurality of openings therein, each said opening adapted to receive one of said containers, and wherein the housing is movable such that each of said containers is capable of being moved proximate to said laser and said detector.

89. (previously presented) The system of claim 88, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said housing, and wherein said housing rotates to move said containers proximate to said laser and said detector.

90. (canceled) The system of claim 79, wherein said laser is a diode laser, and wherein the laser is capable of being tuned to emit radiation at a pluralityof distinct, substantially single wavelengths.

91. (previously presented) The system of claim 79, wherein the system comprises a plurality of said lasers and a plurality of said detectors.

92. (previously presented) The system of claim 79, wherein said container comprises a sample vial having a neck, and wherein said laser emits ~~is adapted to emit~~ said radiation through said neck.

93. (canceled) The system of claim 79, wherein said signal analyzer comprises a computer.

94. (currently amended) A system for detecting the growth of microorganisms in a sample in a container, comprising:

a plurality of containers; and

an apparatus, the apparatus comprising:

a module comprising a plurality of openings configured for receiving said containers;

a laser that emits ~~adapted to emit~~, through said container, radiation at a substantially single wavelength at which a gas selected from the group consisting of NH_3, H_2S, CH_4 and SO_2 absorbs radiation;

a detector ~~adapted to detect~~that detects at least a portion of said radiation that passes through said container; and

a signal analyzer ~~adapted to analyze~~that analyzes said detected radiation, wherein the signal analyzer determines at least one parameter selected from the group consisting of the pressure in the container, the existence of said gas in the container, and the concentration of said gas in the container.

95. (previously presented) The system of claim 94, wherein the laser is a monomodal, distributed feedback laser.

96. (previously presented) The system of claim 94, wherein said gas is NH_3 and said wavelength is approximately 1.997 micrometers.

97. (previously presented) The system of claim 94, wherein said gas is H_2S and said wavelength is approximately 1.570 micrometers.

98. (previously presented) The system of claim 94, wherein said gas is CH_4 and said wavelength is approximately 1.650 micrometers.

99 (previously presented) The system of claim 94, wherein said gas is SO_2 and said wavelength is approximately 7.28 micrometers.

100. (previously presented) The system of claim 94, wherein the signal analyzer determines the pressure in the container.

101. (previously presented) The system of claim 94, wherein the signal analyzer determines the existence of said gas in the container.

102. (previously presented) The system of claim 94, wherein the signal analyzer determines the concentration of said gas in the container.

103. (previously presented) The system of claim 94, wherein said signal analyzer includes a spectrography device, adapted to spectrographically analyze said detected portion of said radiation.

104. (presently amended) The system of claim 94, ~~wherein the system is adapted to hold a plurality of said containers, and~~ wherein the system further comprises a housing, adapted to house said laser and said detector, said housing being movable such that said laser and said detector are capable of being located proximate to each of said containers, sequentially in time.

105. (previously presented) The system of claim 104, wherein said containers are arranged in a plurality of rows and columns, and the housing is adapted to move along said rows and said columns.

106. (previously presented) The system of claim 104, wherein said housing is adapted to extend said laser and said detector toward each said container and to retract said laser and said detector away from each said container.

107. (presently amended) The system of claim 94, ~~wherein the system is adapted to hold a plurality of said containers,~~ wherein the system further comprises a housing having athe plurality of openings therein, each said opening adapted to receive one of

said containers, and wherein the housing is movable such that each of said containers is capable of being moved proximate to said laser and said detector.

108. (previously presented) The system of claim 107, wherein said housing is substantially circular, wherein said openings are disposed circumferentially about said housing, and wherein said housing rotates to move said containers proximate to said laser and said detector.

109. (canceled) The system of claim 94, wherein said laser is a diode laser, and wherein the laser is capable of being tuned to emit radiatin at a plurality of distinct, substantially single wavelengths.

110. (previously presented) The system of claim 94, wherein the system comprises a plurality of said lasers and a plurality of said detectors.

111. (currently amended) The system of claim 94, wherein said container comprises a sample vial having a neck, and wherein said laser emits ~~is adapted to emit~~ said radiation through said neck.

112. (canceled) The system of claim 94, whrein said signal analyzer comprises a computer.